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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,003	12/03/2003	Juanita M. Cassidy	2002-IP-008502U1	4501

7590 06/13/2007  
Robert A. Kent  
Halliburton Energy Services  
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EXAMINER
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CONLEY, SEAN EVERETT

ART UNIT	PAPER NUMBER
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1744

MAIL DATE	DELIVERY MODE
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06/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/727,003

Applicant(s)

CASSIDY ET AL.

Examiner

Sean E. Conley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-12 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. The amendment filed March 23, 2007 has been received and considered for examination. Claims 1-12 are pending.

### *Election/Restrictions*

2. This application contains claims directed to the following patentably distinct species. The applicant must elect a single species from **each** of the following groups:

#### Species Group A (alpha,beta-unsaturated aldehydes and ketones)

crotonaldehyde

2-hexenal

2-heptenal

2-octenal

2-nonenal

2-decenal

2-undecenal

2-dodecenal

2,4-hexadienal

2,4-heptadienal

2,4-octadienal

2,4-nonadienal

2,4-decadienal

2,4-undecadienal

2,4-dodecadienal

2,6-dodecadienal

citral

1-formyl-[2-(2-methylvinyl)]-2-n-octylethylene

cinnamaldehyde

dicinnamaldehyde

p-hydroxycinnamaldehyde

p-methylcinnamaldehyde

p-ethylcinnamaldehyde

p-methoxycinnamaldehyde

p-dimethylaminocinnamaldehyde

p-diethylaminocinnamaldehyde

p-nitrocinnamaldehyde

o-nitrocinnamaldehyde

o-allyloxycinnamaldehyde

4-(3-propenal)cinnamaldehyde

p-sodium sulfocinnamaldehyde

p-trimethylammoniumcinnamaldehyde sulfate

p-trimethylammoniumcinnamaldehyde o-methylsulfate

p-thiocyanocinnamaldehyde

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p-(S-acetyl)thiocinnamaldehyde

p-(S-N,N-dimethylcarbamoylthio)cinnamaldehyde

p-chlorocinnamaldehyde

5-phenyl-2,4-pentadienal

7-phenyl-2,4,6-heptatrienal

5-(p-methoxyphenyl)-2,4-pentadienal

2,3-diphenylacrolein

3,3-diphenylacrolein

alpha-methylcinnamaldehyde

beta-methylcinnamaldehyde

alpha-chlorocinnamaldehyde

alpha-bromocinnamaldehyde

alpha-butylcinnamaldehyde

alpha-amylcinnamaldehyde

alpha-hexylcinnamaldehyde

2-(p-methylbenzylidene)decanal

alpha-bromo-p-cyanocinnamaldehyde

alpha-ethyl-p-methylcinnamaldehyde

p-methyl-alpha-pentylcinnamaldehyde

3,4-dimethoxy-alpha-methylcinnamaldehyde

alpha-[(4-methylphenyl)methylene]benzeneacetaldehyde

alpha-(hydroxymethylene)-4-methylbenzylacetaldehyde

4 chloro-alpha-(hydroxymethylene)benzeneacetaldehyde

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alpha-nonylidenebenzeneacetaldehyde

3,7-dimethyl-2,6-octadienal

beta-hydroxy aldehydes

4-phenyl-3-buten-2-one

3-methyl-1-phenyl-2-buten-1-one

4-phenyl-3-penten-2-one

5-phenyl-4-penten-3-one

6-phenyl-5-hexen-4-one

7-phenyl-6-hepten-4-one-2-ol

7-phenyl-6-hepten-4-one

1,3-diphenyl-2-propen-1-one

1,3-diphenyl-2-buten-1-one

dicinnamalacetone

1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione mesityl oxide

phorone

isophorone

3-methyl-2-cyclohexen-1-one

3,6-dimethyl-2,6-cycloheptadien-1-one

5-methyl-4-hexen-3-one

beta-hydroxy ketones

Species Group B (primary or secondary amines)

ethanolamine

diethanolamine  
partially ethoxylated dehydroabietylamine  
ethylamine  
diethylamine  
dehydroabietylamine  
propylamine  
dipropylamine  
propanolamine  
isopropanolamine  
2-propanol-1-amine  
diisopropanolamine  
butyl amine  
dibutylamine  
tert-butyl amine  
pentyl amine  
dipentylamine  
tert-benzyl-tert-butylamine

Species Group C

- i) the step of contacting said metal surfaces with said aqueous acid solution at temperatures up to about 300 degrees F when said aqueous acid solution comprises hydrochloric acid at a concentration of about 15% by weight thereof (corresponds to claim

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11).

ii) the step of contacting said metal surfaces with said aqueous acid fluid at temperatures up to about 225 degrees F when said aqueous acid solution comprises hydrochloric acid at a concentration of about 28% by weight thereof (corresponds to claim

12).

The species of groups A and B are independent or distinct because they are differing chemical formulas. The species of group C are independent or distinct because the claims to the different species recite the mutually exclusive characteristics of such species. In addition, the species in each of groups A, B, and C are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to **elect a single disclosed species from each of the above groups A, B, and C** for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, 1 is generic. It is suggested that the applicant choose the species that correspond to the preferred embodiment of the invention.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added.



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An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of a species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b)

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if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Conley whose telephone number is 571-272-8414. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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May 30, 2007

  
GLADYS JP CORCORAN  
SUPERVISORY PATENT EXAMINER